



August 11, 2015

*Submitted via electronic filing: <https://www.sec.gov/rules/proposed.shtml>*

Mr. Brent J. Fields  
Secretary  
U.S. Securities and Exchange Commission  
100 F Street, NE  
Washington, DC 20549

**Re: Amendments to Form ADV and Investment Advisers Act Rules, File No. S7-09-15**

Dear Mr. Fields:

BlackRock, Inc. (together with its affiliates, "BlackRock")<sup>1</sup> appreciates the opportunity to respond to the Securities and Exchange Commission's ("SEC" or "Commission") proposed rule regarding Amendments to Form ADV and Investment Advisers Act Rules ("Proposal").<sup>2</sup> BlackRock supports the efforts of the Commission to gather data that can be utilized to evaluate potential risks across separately managed accounts ("SMAs")<sup>3</sup>, registered investment companies ("RICs"), and private funds. We believe that additional information will enhance the Commission's ability to fulfill its Congressional mandate to oversee the US capital markets and its participants.

BlackRock commends the Commission for enhancing its data gathering efforts on SMAs. The absence of such data has led to speculation by various policy makers regarding the nature of SMAs and how they are managed.<sup>4</sup> We believe that policy and regulation of asset management should be empirically driven, and robust data will further such an effort. For example, industry efforts such as the Asset Management Group of the Securities Industry and Financial Markets Association ("SIFMA AMG") study that gathered SMA data voluntarily from nine managers representing over \$3.98 trillion in SMA assets under management ("AUM") was a helpful first step in obtaining empirical data on SMAs.<sup>5</sup> The study results showed that 99% of this AUM was long-only, with 53% invested in passively managed, diversified index strategies. Contrary to the previous speculation of certain policy makers, in aggregate, less than 4% of the number of large surveyed SMAs employed leverage and the average leverage reported for

<sup>1</sup> BlackRock is one of the world's leading asset management firms. We manage assets on behalf of institutional and individual clients worldwide, across equity, fixed income, liquidity, real estate, alternatives, and multi-asset strategies. Our client base includes pension plans, endowments, foundations, charities, official institutions, insurers, and other financial institutions, as well as individuals around the world.

<sup>2</sup> SEC, Amendments to Form ADV and the Advisers Act, 80 Fed. Reg. 33718 (Jun. 12, 2015), available at <http://www.gpo.gov/fdsys/pkg/FR-2015-06-12/pdf/2015-12778.pdf> ("Proposal").

<sup>3</sup> For purposes of reporting on Form ADV, the Commission considers advisory accounts other than pooled investment companies, business development companies ("BDCs"), and private funds to be SMAs. See Proposal at 33719.

<sup>4</sup> See e.g., Office of Financial Research, OFR Study of Asset Management and Financial Stability (Sep. 2013), available at [http://financialresearch.gov/reports/files/ofr\\_asset\\_management\\_and\\_financial\\_stability.pdf](http://financialresearch.gov/reports/files/ofr_asset_management_and_financial_stability.pdf) ("OFR Study"). The OFR Study asserted that separate accounts could utilize extensive amounts of illiquid securities and leverage without any empirical basis.

<sup>5</sup> See e.g., SIFMA, Comment Letter, Response to the FSB's Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions and the OFR's Asset Management and Financial Stability (Apr. 4, 2014), available at <http://www.sifma.org/issues/item.aspx?id=8589948419> ("Separate Account Study").

these accounts was modest. Likewise, less than 2% of the large SMAs surveyed held illiquid securities.<sup>6</sup> Given the policy and regulatory interest in SMAs, we encourage the SEC to collect data on all SMAs managed by registered investment advisers (“RIAs”) in a systematic and ongoing manner to ensure that the data is available to the Commission and that policy decisions are based on empirical evidence and not on false narratives or hypotheticals.

While we recognize that the Commission is well-aware of the structure of SMAs, there has been considerable confusion in the policy debate about the nature of SMAs. We believe it is important that the Commission use this data collection effort to inform other regulators and policy makers who may not be as familiar with SMAs and to ensure that the data collected is interpreted properly. SMA assets are owned by a single client and typically held with a custodian selected by the client. SMA clients engage an adviser to manage client assets which are distinct from the adviser’s own assets or from the assets of the adviser’s other clients. The adviser signs an agreement with each SMA client, called an investment management agreement (“IMA”), which defines investment guidelines by which the adviser must abide in the course of management of the client’s SMA. Investment guidelines typically outline the investment strategy that will be employed in managing the SMA as well as permissible investments. Further, whereas commingled products may experience issues related to investor redemptions, SMAs do not because one client owns all of the assets. Each SMA client has the right to terminate the adviser without penalty and with little or no notice depending on the particular provisions of the IMA. Decisions to change the strategic asset allocation or investment strategy are made by the client, not the adviser.

As we describe in this letter and in the companion letter in response to the Investment Company Modernization Proposal, we are very supportive of the Commission’s goals of enhancing the data received and analyzing it to increase understanding of the asset management industry, and further inform the regulatory debate. In our comments below we provide several technical suggestions related to the data items requested in this Proposal to ensure the Commission receives as clear, consistent, and useful information as possible.

## I. Information Regarding SMAs: Importance of Confidentiality of SMA Data

We appreciate that the Commission has recognized the importance of confidentiality for SMAs as evidenced by its Proposal to aggregate SMA data across all of an adviser’s SMAs. However, we believe that aggregation of the data may not be enough to preserve SMA client confidentiality in certain circumstances. A loss of confidentiality could lead to inappropriate use of the data and harm to SMA investors. Because we recognize the importance of the Commission having access to the data it is requesting on SMAs, we have provided several alternative approaches to ensure that the Commission receives the data, but in a confidential manner to avoid any unintended consequences associated with public disclosure. Given that SMAs are not publicly available like RICs, we believe that the appropriate precedent to look to is the Form PF solution used by the Commission to collect additional information about private funds on a confidential basis.<sup>7</sup>

We do not believe that Form ADV is the optimal place for advisers to provide significant detail on their SMA portfolios such as holdings and derivatives exposures, particularly if this

<sup>6</sup> See Separate Account Study at 2.

<sup>7</sup> See e.g., SEC, Reporting by Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors on Form PF, 76 Fed. Reg. 71155-71156 (Nov. 16, 2011), available at <http://www.gpo.gov/fdsys/pkg/FR-2011-11-16/pdf/2011-28549.pdf>.

information were to be made publicly available. The purpose of Form ADV has been to collect information on advisers across their business, rather than portfolio-level detail on individual products.<sup>8</sup> This information is used by the Commission in its risk assessments and examination program, and particularly as to Part II (the “brochure”) by investors who may be considering the retention of a particular adviser. As SMA portfolio information is driven by the SMA client and the SMA assets are owned directly by the SMA client, not the manager, information regarding SMAs managed by a particular adviser gives little insight for an investor. Further, this information could be misleading without more context of other products managed by the adviser as the nature of the adviser’s SMA business could be entirely different from its fund business. That said, we recognize that SMA data is of value for the Commission. Therefore, we support the collection of the data but believe it should be provided on a confidential basis.

Maintaining confidentiality of data is particularly important in the case of SMAs because the assets in SMAs are owned directly by the SMA client and there could be unintended consequences from their adviser publicly releasing such data, even if it is in the aggregated format contemplated in the Proposal. For example, the Commission’s request for more specific data regarding the number of clients and amount of regulatory assets under management (“RAUM”) attributable to each category of clients, instead of the current requirement to report ranges, could put client confidentiality at risk if this data is made public. For a particular adviser, there may be only one or two accounts in a particular category, potentially making this client identifiable and its RAUM with an adviser public information. As proposed Item 5.D underscores, some SMA clients are “sovereign wealth funds and foreign official institutions” including central banks as well as other large institutional investors. Given that the proposed amendments to Form ADV would require advisers to report SMA RAUM by client type and holdings by asset class, it could be possible in certain circumstances for members of the public to glean information about the account activity of these types of investors including potentially the identity of the client and/or shifts in strategic asset allocation by large institutional investors even if the identity of the client is unknown. Shifts in strategic asset allocation by large institutional investors can be perceived as market moving events.<sup>9</sup> As such, it is possible to envision inappropriate uses of the proposed Form ADV data on SMAs and potentially problematic consequences for both the institutional investor and the markets more generally if members of the public were able to (or believed they were able to) observe a shift in asset allocation of a large institutional investor by reviewing Item 5.D on certain advisers’ Form ADV. This issue will likely have a greater impact on advisers with fewer SMAs given that aggregation will be helpful in obscuring individual SMA clients’ information when an adviser manages large numbers of SMAs across multiple different client types. Lastly, the clients of all advisers have the expectation of confidentiality when they engage the services of an adviser,<sup>10</sup> creating additional concerns for the adviser.

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<sup>8</sup> While Form ADV gathers information on the amount of assets and a general description of private funds advised by the adviser, the portfolio level detail on private funds is provided confidentially to the Commission on Form PF and not disclosed publicly.

<sup>9</sup> For example, on Oct. 31, 2014, Japan’s Government Pension Investment Fund (“GPIF”) shifted its asset allocation targets, significantly reducing domestic bond holdings from 60% to 35%, increasing foreign bond holdings from 11% to 15%, increasing both domestic and foreign equity holdings from 12% to 25% each, and removing 5% short-term assets from allocation targets. GPIF, Adoption of New Policy Asset Mix (Oct. 31, 2014), available at [http://www.gpif.go.jp/en/fund/pdf/adoption\\_of\\_new\\_policy\\_asset\\_mix.pdf](http://www.gpif.go.jp/en/fund/pdf/adoption_of_new_policy_asset_mix.pdf). This announcement resulted in a 4% decrease in the yen-to-USD exchange rate and a rally in Japanese stock markets. Data from the Wall Street Journal and Bloomberg websites as of Nov. 7, 2014. See Ben McLannahan, Financial Times, Japan pension fund commits to big switch to stocks (Oct. 31, 2014), available at <http://www.ft.com/intl/cms/s/0/8114ec60-60ef-11e4-894b-00144feabdc0.html#axzz3hm8elo70>.

<sup>10</sup> See sections 204(b)(9) and (10) of the Advisers Act. Further, IMAs often specify that advisers should keep client information confidential.

Third, the reporting of derivatives, borrowing, and leverage could also compromise client confidentiality. Specifically, proposed Item 5.K.(2) of Schedule D requires the adviser to list the number of accounts in three net asset value (“NAV”) categories: (i) \$10 million to \$250 million; (ii) \$250 million to \$1 billion; and (iii) greater than \$1 billion. Certain categories – in particular the greater than \$1 billion category – could potentially include very few accounts for certain advisers. Such information, together with the information to be provided as proposed in Item 5.D., could potentially identify a large client’s strategic asset allocation or investment strategy.

Taken together, we believe the confidential nature of SMAs makes it imperative that the information provided regarding SMAs be kept confidential. We understand and support the collection of this data, but we recommend that this information be kept confidential and reported directly to the Commission instead of on a public form.<sup>11</sup>

Specifically, the Commission could add a section to Form PF where the aggregated information on SMAs requested by the Commission could be provided using the pre-existing mechanism already in place. Alternatively, the Commission could create a new form to collect this data. Another approach could be to request that advisers provide information in Item 5.D and additional information in Section 5.K.(2) in the annual update of the Form ADV, but *not* make these responses visible to the public on Investment Adviser Public Disclosure, similar to what is done for Item 1.J and Item 1.K of the Form ADV. This approach would provide the Commission with the additional information requested in the Proposal while continuing to provide investors the currently reported level of detail on the adviser’s overall client base, without putting client confidentiality at risk.

These alternate approaches would capture the information the Commission needs and would provide the SEC with a useful window into an adviser’s SMA investment activities while protecting the confidentiality of the SMA client data collected.<sup>12</sup>

## **II. Information Regarding Separately Managed Accounts: Data We Support Collecting in a Confidential Manner To Advance the Commission’s Proposal’s Goals**

The Proposal’s enhanced reporting regime is expected to enhance the Commission’s ability to fulfill the following goals: (i) monitor industry trends; (ii) make informed policy and rulemaking choices; (iii) identify and monitor risks; (iv) direct examination and enforcement efforts; (v) protect investors; and (vi) facilitate capital formation in the securities markets (“Proposal Goals”). We are supportive of these Proposal Goals and believe that additional information available to the Commission on SMAs will help to further the Commission’s objectives, which as stated above we believe can be met by the provision of this data on a confidential basis. As such, we have outlined our view on the various proposals below.

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<sup>11</sup> Stated another way, we believe the marginal utility of the expanded SMA data to the public is outweighed by the potential adverse consequences of public disclosure.

<sup>12</sup> If the Commission continues to believe that the amount of RAUM attributable to SMAs in the public domain is an appropriate disclosure for Form ADV, we believe this should be added to Item 5.K instead of requesting a client breakdown by RAUM and number of clients as proposed for Item 5.D. This would allow the public and the Commission to understand the RAUM attributable to SMAs for each adviser without potentially compromising SMA client confidentiality.

### **RAUM Thresholds**

The Proposal asks whether the Commission has set appropriate RAUM thresholds with respect to the requested data on SMAs. In particular, the Proposal requests that advisers report holdings information for all SMAs and information on derivatives based on total RAUM related to SMAs. In particular, advisers with greater than \$150 million in SMA RAUM but less than \$10 billion in SMA RAUM would need to report less granularity for the items related to derivatives than advisers with SMA RAUM greater than \$10 billion. Further, it appears from proposed Section 5.K.(2), that the Commission is not seeking information on derivatives use for SMAs with less than \$10 million in RAUM. Given that each SMA is its own pool of assets managed independently from other SMAs managed by the adviser, there is the potential that the proposed thresholds could lead to inconsistent reporting of SMA data, particularly for relatively large SMAs managed by advisers with less than \$150 million in SMA RAUM. For example, an adviser with a \$140 million SMA would not need to report additional granularity on the use of derivatives but a manager with ten \$11 million SMAs would need to report the additional granularity. This could potentially introduce “noise” and/or inconsistency into the data provided. We would suggest that a more effective approach would be to limit the data reporting requirements for SMAs on Form ADV for both Item 5.K.(1) and Item 5.K.(2) to individual SMAs with greater than a certain RAUM threshold. For example, the SIFMA AMG separate account survey asked for detailed breakdowns of SMA assets for all SMAs that were greater than \$75 million in RAUM. We believe this was an effective approach in focusing the data collection effort on SMAs of a substantial size and ensured consistency of the data across managers.<sup>13</sup> We suggest that the Commission apply this approach to Form ADV and require that any adviser with an SMA that has RAUM greater than \$75 million complete the same set of data tables for their SMAs at or above that threshold.

### **Investment Strategy and Holdings**

The Proposal suggests that the Commission collect RAUM attributable to SMAs and data on holdings of those SMAs managed by the adviser across ten asset categories:<sup>14</sup> (i) exchange-traded equity securities; (ii) US Government/Agency bonds; (iii) US state and local bonds; (iv) sovereign bonds; (v) corporate bonds – investment grade; (vi) corporate bonds – non-investment grade; (vii) derivatives; (viii) securities issued by RICs or BDCs; (ix) securities issued by pooled investment vehicles (other than RICs); and (x) other. Exhibit 1 shows the proposed table that advisers would be asked to complete.

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<sup>13</sup> See Separate Account Study definition of “large separate account”.

<sup>14</sup> Proposal at 33720.

### Exhibit 1: Proposed Section 5.K.(1)

Asset Type	Mid-year	End of year
(i) Exchange-Traded Equity Securities	___%	
(ii) U.S. Government /Agency Bonds		
(iii) U.S. State and Local Bonds		
(iv) <i>Sovereign Bonds</i>		
(v) Corporate Bonds – <i>Investment Grade</i>		
(vi) Corporate Bonds – <i>Non-Investment Grade</i>		
(vii) Derivatives		
(viii) Securities Issued by Registered Investment Companies or Business Development Companies		
(ix) Securities Issued by Pooled Investment Vehicles (other than Registered Investment Companies)		
(x) Other		

Generally describe any assets included in “Other”: \_\_\_\_\_

We believe this information will help the Commission identify which managers specialize in SMAs that invest in certain asset classes.<sup>15</sup> However, we have two technical comments regarding the breakdown provided. First, we believe that instead of having an “Other” category that may encompass multiple asset classes, the Commission should consider adding additional categories to the list. In particular, we would suggest the inclusion of “private real estate”, “structured products”, and “cash and cash equivalents” as separate categories.<sup>16</sup> This would result in fewer asset classes being included in the “other” category which would be helpful from a data consistency perspective and give the Commission clearer data to analyze. It will also assist in comparing the data across advisers.

Second, we would suggest that the “derivatives” category be removed from the list, particularly given that information about derivatives is being captured on proposed Section 5.K.(2). While it is possible to provide the breakout in the requested format, the “derivatives” category may not provide the information we believe the Commission seeks by this proposed request.<sup>17</sup>

We assume the Commission is looking for a proxy for risk in SMAs. However, by requesting derivatives as a percentage of RAUM, the Commission is unlikely to obtain such a proxy for risk associated with the use of derivatives. In particular, the RAUM calculation includes derivatives on a market value basis, where “in-the-money” derivatives (assets) would be included and “out-of-the-money” derivatives (liabilities) would not be included. Therefore, this category would be unlikely to provide the Commission with usable information about risk associated with derivatives and could even be misleading. Further, the Proposal to calculate

<sup>15</sup> Asset owners will often retain a manager based on their demonstrated ability to provide returns or track a given index in particular strategies or asset classes. As a result, some smaller advisers may, for example, have a significant concentration of SMA assets relative to the market for such securities than a larger manager who may specialize in different asset classes.

<sup>16</sup> We note that Form PF has a more comprehensive list of asset classes that could be used as a model and to promote consistency between the Commission’s forms. See e.g., Form PF Questions 26 and 30.

<sup>17</sup> The inclusion of derivatives in proposed Section 5.K.(1) as a percentage of RAUM appears to be inconsistent with what is currently being requested on Form PF. See Form PF Question 26 (asking respondents provide market values for physical asset classes, such as listed equities, and notional values for derivatives).

“derivatives” as part of RAUM could lead to confusion and/or inconsistent treatment among advisers which might be counterproductive to the overarching objective.

### **Derivatives, Borrowing, and Leverage**

We are supportive of the Commission’s efforts to obtain data on the use of derivatives, borrowing, and leverage within SMA portfolios. The use of leverage by SMAs has been a subject of considerable speculation by policy makers.<sup>18</sup> Accurate data is critical to informing the dialogue about the use of derivatives, borrowing, and leverage in SMAs as well as for the Commission to understand for examination purposes which managers of SMAs have clients that are engaged in strategies that use considerable leverage. In the Proposal, the Commission is asking advisers to report the following information in aggregate on the SMAs they manage:

*For advisers with more than \$150 million in SMA RAUM:*

1. Number of accounts that correspond to gross notional exposure (“GNE”) categories.
2. Weighted average amount of borrowings as a percentage of NAV.

*For advisers with more than \$10 billion in SMA RAUM:*

3. Weighted average GNE of derivatives as a percentage of NAV for six categories of derivatives: (i) interest rate derivative; (ii) foreign exchange derivative; (iii) credit derivative; (iv) equity derivative; (v) commodity derivative; and (vi) other derivative.

We will address each requested data point below; however, we believe the discussion needs to start with a conceptual framework that defines the objectives of collecting this data to ensure that the Commission receives the comprehensive information it needs to meet the Proposal Goals. It is, therefore, important to clarify what information is being sought and how the information is intended to be used. In particular, the Commission should clarify whether it is seeking to understand which SMA advisers are using derivatives to achieve their SMA clients’ objectives and what types of derivatives they are using (what we will refer to as a “derivatives footprint”). Alternatively, we believe that the Commission may also be interested in understanding the degree of economic exposure being obtained via the use of structural leverage. Each of these objectives is reasonable; however, they are different and require different approaches to gather the relevant data. We believe that the current Proposal and Section 5.K.(2).*(i)* worksheet inadvertently conflates these concepts. An adjustment will be needed in order to meet either or both of the aforementioned objectives. As outlined below, we suggest creating two separate tables – one with information about the derivatives footprint and one with information on leverage. Importantly, we are making this suggestion assuming that this information would be kept confidential by the Commission. In the public domain, this information could be harmful to SMA investors for the reasons outlined in Section I.

Further, it is important to re-iterate that derivative contracts are entered into between the asset owner (i.e., SMA client) and the counterparty, who is generally a broker-dealer or a central clearing counterparty (“CCP”). Therefore, the proposed data collection effort can be used to identify managers that have been retained by SMA clients to employ investment strategies that may use derivatives or leverage. It cannot be used to identify risks associated with a particular manager given that the manager does not own the assets in the SMA nor is it the counterparty

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<sup>18</sup> See e.g. Office of Financial Research, 2014 Annual Report (2014), available at <http://financialresearch.gov/annual-reports/files/office-of-financial-research-annual-report-2014.pdf>. Financial Stability Oversight Council, 2015 Annual Report (2015), available at <http://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/2015%20FSOC%20Annual%20Report.pdf>.

to the SMA's derivatives use. Given that the Proposal asks for aggregated data on derivatives across SMAs, we believe it is important to highlight this key point. **While the data could provide useful insights into the use of derivatives in the SMAs of a particular adviser, this information does not reflect the derivative footprint of the adviser nor does it reflect leverage on the adviser's balance sheet.**

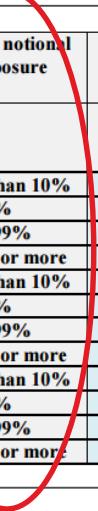
#### A. Derivatives Footprint

Collecting information about GNE broken out by the proposed categories of derivatives could be helpful in understanding the derivatives footprint of the SMAs managed by a given adviser. This information could be used by the Commission to understand which managers of SMAs are employing investment strategies that make use of various derivatives instruments. Importantly, although the derivatives footprint provides information about the use of derivatives, it does *not* provide information about leverage or risk.

GNE is not a good measure of leverage or risk because GNE only measures the outstanding notional amount of derivatives. By measuring the notional amount of derivatives, GNE as a portfolio metric is not a measure of the risk of an investment portfolio. This is because the GNE calculation does not take into account important risk characteristics of a security such as volatility. This means that the use of certain derivatives may increase GNE without necessarily contributing greater risk to the portfolio. For example, at equal notional sizes, the volatility of a 10-year Note Treasury future is approximately *seventy times greater* than that of a Eurodollar future. This is due to differences in the duration of these two instruments and the different volatilities of the key rate points on the yield curve to which they are exposed. Yet, GNE would only count the notional value, treating Eurodollar contracts the same as 10-year Notes futures.

GNE should only be used by the Commission to understand the derivatives footprint and should not be used to try to understand leverage or risk associated with SMAs. Therefore, we caution that GNE as a percentage of NAV used in aggregate for multiple portfolios is likely to be misleading if the intention is to use it as a measure of leverage or risk. Further, we believe that collecting the number of accounts that correspond to GNE as a percentage of NAV categories as currently proposed in Section 5.K.(2).(i) could be confusing and suggest that this column be replaced with a total column as shown in Exhibit 3. This is because the proposed bucketing will not provide helpful information about the derivatives footprint or leverage and could be misleading. The red circle in Exhibit 2 shows the column we believe should be removed from the worksheet.

**Exhibit 2: Proposed Section 5.K.(2).(i)**



Net asset value of account	Gross notional exposure	1 Number of accounts	2 Average borrowings	3 Average Derivative Exposures					
				(a) Interest Rate Derivative	(b) Foreign Exchange Derivative	(c) Credit Derivative	(d) Equity Derivative	(e) Commodity Derivative	(f) Other Derivative
\$10,000,000 - \$249,999,999	Less than 10%								
	10-99%								
	100-199%								
	200% or more								
\$250,000,000 - \$999,999,999	Less than 10%								
	10-99%								
	100-199%								
	200% or more								
\$1,000,000,000 or greater	Less than 10%								
	10-99%								
	100-199%								
	200% or more								

We recommend instead, collecting the number of accounts that correspond to each of the six categories of derivatives requested to better understand a manager's use of different types of derivatives as shown in Exhibit 3.

**Exhibit 3: Suggested Worksheet for Derivatives Footprint**

Net Asset Value of Account	Number of Accounts	Average Derivative Exposures						Total Wtd. Avg. GNE
		(a) Interest Rate Derivative	(b) Foreign Exchange Derivative	(c) Credit Derivative	(d) Equity Derivative	(e) Commodity Derivative	(f) Other Derivative	
\$75,000,000 – \$249,999,999								
\$250,000,000 - \$999,999,999								
\$1,000,000,000 or greater								

*B. Borrowing*

The requested information on the weighted average amount of borrowings as a percentage of NAV is a reasonable measure to determine if any SMAs managed by the adviser use borrowings as part of the investment strategy. Given that SMAs are not commingled vehicles which need to meet redemptions, temporary borrowing to meet redemptions is not relevant for SMAs. Therefore, SMAs that use borrowing may be more likely to do so in order to obtain structural leverage. While borrowings would not provide a comprehensive measure of leverage given that it does not consider derivatives use, it could at least provide a measure of leverage related to borrowing. To avoid misunderstandings about the conceptual differences between the derivatives footprint and leverage, we suggest making this a separate item from the worksheet on the derivatives footprint.

*C. Comprehensive Measures of Leverage*

We appreciate that the Commission has sought to limit the complexity of the data requested in the Proposal to ensure that the new requirements are as easy as possible for advisers to complete. However, obtaining a comprehensive measure of leverage that is useful

for regulatory oversight necessarily requires the introduction of a certain level of complexity. While obtaining a comprehensive measure of leverage within the Commission's rules may be better placed in a different rulemaking<sup>19</sup>, we thought it would be worthwhile to explore the topic in this letter given our view that there is a need for a consistent and comprehensive approach to leverage among regulators in various jurisdictions.<sup>20</sup> A clear definition of leverage is needed. In particular, a comprehensive definition of leverage would include the use of borrowings and derivatives. We have made similar comments in our companion letter, which addresses the Investment Company Modernization Proposal.

An appropriate measure of leverage needs to account for the fact that derivatives used for hedging or offsetting positions do not create leverage. In Europe, the Alternative Investment Fund Managers Directive ("AIFMD") was successful in introducing reporting of a conceptually workable and comprehensive measure of leverage, called "commitment leverage." We have provided a discussion of calculating leverage in Appendix A. The framework we outline in Appendix A is conceptually consistent with the AIFMD approach to calculating commitment leverage but deviates from the specific AIFMD rules for the sake of simplicity and clarity. We believe that further engagement with the industry on various methods of calculating leverage would allow the Commission to understand the benefits and limitations of various approaches.

Should the Commission be interested in introducing a comprehensive measure of leverage into this rulemaking, we suggest the Commission ask advisers to calculate leverage for their SMAs and report the number of SMAs using leverage and weighted average commitment leverage as a percentage of NAV for the SMAs that use leverage. See an example of how we would envision this worksheet in Exhibit 4 below. This could help the Commission streamline its examination efforts by demonstrating which advisers have a large number of SMAs that are employing significant amounts of leverage.

#### **Exhibit 4: Suggested Worksheet for Leverage**

Net Asset Value of Account	Number of Accounts Employing Leverage	Weighted Average Leverage for Accounts Employing Leverage
\$75,000,000 – 249,999,999		
\$250,000,000 – \$999,999,999		
\$1,000,000,000 – or greater		

#### **Information About Custodians**

We are supportive of the Commission collecting information about the custodians to SMAs. Custodians are crucial to the connectivity of the financial system, and as such, we believe that the Commission should seek information about custodians. However, we note several important factors for the Commission to consider when reviewing this information. First,

<sup>19</sup> Given the ongoing work of the Commission in examining leverage, liquidity, derivatives, ETFs, and other topics, we note that these data collection measures will require coordination and harmonization with those Commission initiatives and rulemaking proposals. BlackRock looks forward to continuing working with the Commission by providing support, comments, and suggestions on these initiatives.

<sup>20</sup> See BlackRock, Comment Letter, Request for Comment on Asset Management Products and Activities – FSOC (Mar. 25, 2015), available at <http://www.blackrock.com/corporate/en-us/literature/publication/fsoc-request-for-comment-asset-management-032515.pdf>.

SMA clients (as owners of the SMA assets) generally select and contract directly with custodians who are responsible for the safekeeping of their assets. From time to time, SMA clients decide to change custodians. The adviser is similarly hired by the client and is subject to termination by the client. The adviser generally does not select the custodian and the asset manager has *no* independent access to SMA client assets held at a custodian.<sup>21</sup> Information about custodians could help to “identify advisers whose clients use the same custodian in the event, for example, a concern is raised about a particular custodian.”<sup>22</sup> Information about custodians could also facilitate the Commission’s work with various banking regulators to ensure the proper regulation and consistent oversight of large custodians. Depending on the granularity of the information, however, we believe that the Commission may be better served in seeking the information from custodians themselves or from the regulators of those custodians.

The Commission is proposing that advisers identify each custodian that accounts for at least ten percent of SMA RAUM managed by the adviser and the amount of the adviser’s RAUM attributable to SMAs held at the custodian. While advisers can compute the aggregate assets that they manage based on where they are held in custody, the proposed requirement to report this information only exists when the custodian custodies more than ten percent of the manager’s SMA assets. Given the variety of sizes of advisers regulated by the Commission, we believe that basing this requirement on a percentage of SMA RAUM will lead to inconsistent data that is highly predicated on the RAUM of the adviser’s SMA business. We do not believe that this was the intention of the Commission and would instead suggest that the Commission require advisers to list the names of all custodians used by its SMAs that custody SMA assets above a specified AUM threshold.

Importantly, we reiterate the need for confidentiality if the Commission intends to receive data on SMA AUM custodied by any custodian. In particular, it would be problematic if the public viewed changes to the RAUM custodied by a particular custodian as reflective of the reputation, solvency, or operational soundness of a custodian. This could lead to unintended consequences, particularly if changes to RAUM custodied by a custodian were due to factors unrelated to the custodian. For example, in the event an SMA client decided to change advisers, the RAUM in the terminated adviser’s Form ADV would decline and the RAUM on the hired adviser’s Form ADV would increase, which could result in the custodian for the SMA client being removed from Section 5.K.(3) of the terminated adviser’s Form ADV and potentially added to the hired adviser’s Form ADV, even though the RAUM at the custodian had not changed. In the case of a large SMA, this could distort the data and potentially lead to inappropriate conclusions by the public, particularly given that the public would not be privy to the reasoning behind the change in the RAUM custodied. For those custodians that are systemically important financial institutions (“SIFIs”) in particular, this could have systemic risk implications, which is not the intention of the Commission’s Proposal.

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<sup>21</sup> We appreciate that prior to the adoption of the changes to Rule 206(4)-2 in 2009, a small number of investment advisers may have exploited the lack of disclosure and standards pertaining to custodians and improperly accessed client funds and/or provided misleading information to investors about the status of their accounts. This situation was atypical prior to the rule changes, and even less likely to occur today. See SEC, Custody of Funds or Securities of Clients by Investment Advisers (Dec. 30, 2009), available at <https://www.sec.gov/rules/final/2009/ia-2968.pdf>.

<sup>22</sup> Proposal at 33721.

### **III. Suggested Technical Clarifications**

#### **Social Media**

The Proposal requests that advisers report the addresses of social media accounts on Form ADV. Social media is growing in importance and we understand the Commission's rationale for requesting this information. However, the use of social media is also evolving very quickly. Rather than try to update platform and account information every time a new social media account is created or removed in an environment of rapidly changing platforms, we recommend requiring this information as part of the annual Form ADV update.

#### **Parallel Accounts**

Regarding parallel managed account reporting, the Commission proposes an addition to Section 5.G.(3) of Schedule D, requiring reporting of the RAUM of all parallel managed accounts related to a RIC or BDC that is advised by the adviser.<sup>23</sup> As a general matter, this request has limited informational value and could potentially be misleading. The investment mandates for SMAs are driven by asset owners who define the investment guidelines. Even if the investment strategies that are employed in the SMA are similar to a RIC, they are still distinct with separate guidelines and investment restrictions and driven by the needs of the asset owner.

If the Commission's objective as outlined in the Proposal is to understand "how an adviser manages conflicts of interest between parallel managed accounts and RICs or BDCs advised by the adviser,"<sup>24</sup> we suggest the Commission request the adviser's written policies related to fair treatment of all accounts and test compliance with these policies during adviser examinations. We do not believe that the collection of parallel account information would be helpful in achieving the stated objective.

#### **Umbrella Registration**

We are supportive of the SEC's Proposal of revisions to Form ADV that would provide for a streamlined "umbrella registration" process for multiple investment advisers within a corporate structure that together conduct a single advisory business. The Commission asks in its request for comment whether umbrella registration should be required and if firms should indicate if they could, but choose not to, rely on umbrella registration.<sup>25</sup> We agree with the Commission's Proposal not to make umbrella registration mandatory. Holding the Filing Adviser and Relying Adviser out in a regulatory filing as "conducting a single advisory business" could introduce unintended consequences (e.g., litigation risk carrying from one adviser to the other). Thus, we believe that each adviser should be able to make the decision based on its own particular facts and circumstances whether it wishes to make use of the umbrella registration. We also believe that firms should not have to indicate why they choose not to rely on umbrella registration.

In order to make the umbrella registration more beneficial, we have a few recommended clarifications. The Commission should consider expanding the availability of umbrella

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<sup>23</sup> *Id.* at 33723.

<sup>24</sup> *Id.* at 33724.

<sup>25</sup> *Id.* at 33726.

registration to include, at a minimum, Filing Advisers that advise a wider range of client types, including RICs and BDCs. The Commission should also consider providing specific guidance on how an existing RIA, meeting the requirements to be a Relying Adviser, would undertake no longer filing its own Form ADV, so as to be included in the Form ADV of the Filing Adviser.

**Frequency of Filing**

We believe the proposed changes to the Form ADV should only be required to be updated annually. As such, we agree with the instructions in Appendix A (Form ADV; General Instructions) of the Proposal, except as outlined in Section III (Social Media) where we believe that social media should also only be updated annually.

**Delivery of Information**

While not specifically addressed in the Proposal, we would like to recommend that as the Commission increases the amount and complexity of information they request on Form ADV, the manual entry of such data in the Form ADV on the Investment Adviser Registration Depository site should be conducted through a more efficient process, possibly similar to the file format (i.e. XML) used to provide information requested in Form PF.

\* \* \* \* \*

We thank the SEC for providing BlackRock the opportunity to comment on the Proposal. Please contact the undersigned if you have any questions or comments regarding BlackRock's views.

Sincerely,

Barbara Novick  
Vice Chairman

Benjamin Archibald  
Managing Director

cc:

The Honorable Mary Jo White  
Chairman  
Securities and Exchange Commission

The Honorable Luis A. Aguilar  
Commissioner  
Securities and Exchange Commission

The Honorable Daniel M. Gallagher  
Commissioner  
Securities and Exchange Commission

The Honorable Michael Piwowar  
Commissioner  
Securities and Exchange Commission

The Honorable Kara M. Stein  
Commissioner  
Securities and Exchange Commission

David Grim  
Director  
Division of Investment Management  
Securities and Exchange Commission

## **Appendix A: High Level Framework for Discussion on Economic Leverage**

### *Calculating “Commitment” Leverage*

#### **Introduction & Overview**

In discussion below, we have outlined a simplified, high level framework with the goal of starting a conversation across the regulatory and buy-side community around an appropriate and comprehensive method to measure economic leverage. The approach is conceptually consistent with the AIFMD Commitment Leverage approach in that both borrowings and structural leverage from derivative positions used as part of investment strategies in a portfolio are included in the leverage measure. Further, the approach appropriately recognizes that derivatives used for hedging positions and offsetting long and short positions do not create leverage. We note, however, that the specific calculations we describe deviate from the AIFMD rules for the purpose of simplification and clarity. We do not view the calculation of leverage described below as a precise measure of leverage as, given its simplicity, there are several intentional limitations with this approach. Further, we note that the calculation of a reasonable and comprehensive measure of leverage naturally introduces complexity which can increase costs of implementation and the operational difficulty associated with producing this figure for multiple portfolios on a regular basis. These considerations would need to be addressed in order to implement such a measure of leverage.

That said, we believe that the approach described below is a reasonable starting point that could help begin a robust conversation about leverage between the Commission and the industry. In particular, this approach only requires data on the positions in the portfolio and it does not introduce a significant amount of subjectivity into determining the existence of a hedge or offsetting position which will help promote consistency in the calculations provided by various managers. As such, we believe that with enhanced precision on approaches for risk bucketing and normalization of risk into common units (described below), managers could calculate this figure in a relatively consistent manner, albeit with a workable implementation timeframe that takes into account the level of complexity associated with the production of this figure.

We recommend that the Commission engage with the asset management industry through industry forums or other means to determine: (a) enhancements to improve precision, add granularity, and eliminate simplifying assumptions; and (b) obtain the appropriate balance between precision and the need for consistent computability across the broad and diverse range of RICs under the Commission’s purview. We would welcome participation in such forums as well as the opportunity to consider other ideas that may better achieve the Commission’s objectives.

#### **Conceptual Discussion**

Below is a high level overview of the steps that one would take to calculate “commitment” leverage where leverage includes borrowings (e.g. repo, bank lines of credit, and inter-fund lending) and structural leverage from derivatives positions (after removing positions that are offsetting or hedging positions in a fund).

##### **Step 1: Net “natural offsets” using an appropriate exposure metric for each risk factor type.**

- 1A: Determine units of measurement for each risk exposure type. For example:
  - **Interest Rate Risk:** Duration dollars by currency

- **Spread Risk:** Duration times Spread (“DxS”) by market (e.g., investment grade credit, high yield credit, agency MBS, CMBS, etc.), and currency
- **Inflation Risk:** Real duration dollars by currency
- **Equity Risk:** Delta-adjusted equity beta by country
- **FX Risk:** Unhedged (active) currency exposure
- **Commodity Risk:** Delta-adjusted commodity beta

*\*We note that guidance around appropriate risk buckets would need to be given to ensure consistent application of this approach. This guidance should include sufficient granularity of risk buckets. For example, for spread risk, there are a multitude of distinct risks that would need to be defined and captured (e.g. Investment Grade, High Yield, Bank Loan, Agency MBS, CMBS, Structured Products, Emerging Markets, Sovereign, etc.) Additionally, enhanced methods to normalize varying risks into common equivalents should be considered.*

- 1B: Calculate net exposure of each by risk factor block for cash securities and derivatives separately.
  - Offsetting exposures from reverse repo transactions should not be included in this calculation. For example, bookkeeping positions for a repo transaction typically include a long position for the security being used as collateral and an offsetting short repo position. This means that a repo position would only count towards leverage, if the resulting cash that is raised is used towards the purchase of another asset.

### **Step 2: Compare net cash and net derivative exposure.**

- 2A: Compare net exposure from cash securities to those from derivatives and exclude derivatives exposure being used for hedging or risk reduction.
  - If sign of cash and derivative position is the same, take the absolute value.
  - If sign of each derivative position is opposite from the cash position, this means that the derivatives are being used as a hedge and should be excluded from leverage calculation.
  - If cash is less than derivative exposure, use absolute value of the difference, as this signifies that derivative usage is above and beyond that needed for hedging or risk management purposes.

### **Step 3: Normalize net derivative exposure by volatility.**

- Adjust each risk block exposure based on its long term historical volatility and normalize to a common unit.

### **Step 4: Convert exposure to an appropriate ‘dollar’ unit and divide by portfolio NAV.**

- For fixed income, we suggest normalizing to the portfolio’s benchmark duration or to 10 year equivalents if the portfolio does not have a benchmark. With this approach, methodology enhancements would be needed for very long-dated portfolios as conversion to 10 year equivalents may overstate risk.
- For borrowing, divide outright borrowing by NAV.
- In this approach, exposure from derivatives not used for hedging will be treated as structural leverage. The exception is long and short positions

with the same underlying and other relevant contract terms. Where long and short positions have the same terms, they should be considered offsetting and removed from the leverage calculation.

### **Step 5: Repeat steps 1 to 4 for all risk exposures and add to obtain commitment leverage.**

#### **Illustrative Example**

#### **Exhibit A.1: Calculations for Interest Rate Duration Risk Exposure**

Currency	Step 1A - Duration Dollars				Total	Step 1B - Net Exposures		Step 2 - Net Hedges		Step 3 - Normalize Vol	
	Cash.Long	Cash.Short	Deriv.Long	Deriv.Short		Cash Net	Deriv Net	Sign Check	Deriv Net Hedges	10Yr Vol	Norm Deriv
AUD	6,652,720	(6)	1,782,564,660	(804)	1,783,216,570	6,652,714	1,782,563,856	Same	1,782,563,856	0.84%	1,773,903,407
BRL	0	0	549,869,224	(176,836,580)	373,032,644	0	373,032,644	Same	373,032,644	1.61%	715,094,886
CAD	50	(260)	148,795,849	(147,445,152)	1,350,486	(210)	1,350,697	Opposite	1,350,486	0.68%	1,086,587
CLP	-	-	0	(0)	(0)	-	(0)	Opposite	0	0.74%	0
CNH	25,032,085	-	(0)	0	25,032,085	25,032,085	(0)	Opposite	-	0.58%	-
CNY	2,137,235	-	380,672,225	-	382,809,460	2,137,235	380,672,225	Same	380,672,225	0.48%	217,729,747
COP	-	-	0	(0)	(0)	-	(0)	Opposite	0	1.31%	0
EUR	6,924,876,550	(1,012,860,313)	953,459,757	(3,493,652,121)	3,371,823,873	5,912,016,237	(2,540,192,364)	Opposite	-	0.74%	-
GBP	1,184,410,326	(430,451,094)	-	(3,458,834,838)	(2,704,875,605)	753,959,232	(3,458,834,838)	Opposite	2,704,875,605	0.83%	2,662,736,010
HKD	8,192,974	-	-	8,192,974	-	8,192,974	-	Opposite	-	0.82%	-
HUF	-	-	-	(148,397,406)	(148,397,406)	-	(148,397,406)	Opposite	148,397,406	1.85%	326,113,134
IDR	824	-	(0)	0	824	824	0	Same	0	1.66%	0
INR	444,108,932	-	(282,897)	(38,898,164)	404,927,871	444,108,932	(39,181,061)	Opposite	-	0.83%	-
JPY	1,782,539,231	(1,671)	381,193	(1,744,972,685)	37,946,067	1,782,537,560	(1,744,591,492)	Opposite	-	0.28%	-
KRW	-	(773)	1,326,191,576	(17,282,371)	1,308,908,432	(773)	1,308,909,205	Opposite	1,308,908,432	0.59%	921,527,056
MXN	414,229,832	0	711,413,109	(184,798,657)	940,844,283	414,229,832	526,614,451	Same	526,614,451	1.13%	704,989,172
MYR	-	-	-	(0)	0	-	(0)	Opposite	-	0.49%	0
NOK	1,387	-	-	(0)	1,387	1,387	(0)	Opposite	-	0.74%	-
NZD	132,125,234	-	-	-	132,125,234	132,125,234	-	Opposite	-	0.90%	-
PLN	0	-	214,345,561	(882,190,748)	(667,845,187)	0	(667,845,187)	Opposite	667,845,187	0.96%	764,100,760
RUB	83,262,789	-	(0)	0	83,262,789	83,262,789	(0)	Opposite	-	1.97%	-
SEK	2,865,984	-	-	-	2,865,984	2,865,984	-	Opposite	-	0.74%	-
SGD	2,791	-	-	-	2,791	2,791	-	Opposite	-	0.81%	-
THB	320,198	-	-	-	320,198	320,198	-	Opposite	-	0.71%	-
TRY	7,874	-	-	(0)	7,874	7,874	(0)	Opposite	-	2.28%	-
USD	23,165,133,753	(2,634,547,746)	3,613,553,356	(21,915,939,706)	2,228,199,657	20,530,586,007	(18,302,386,351)	Opposite	-	0.84%	-
ZAR	4,643	-	(0)	0	4,643	4,643	(0)	Opposite	-	1.25%	-
<b>Grand Total</b>	<b>34,175,905,413</b>	<b>(4,077,861,862)</b>	<b>9,680,963,610</b>	<b>(32,209,249,232)</b>	<b>7,569,757,930</b>	<b>30,098,043,551</b>	<b>(22,528,285,621)</b>	<b>-</b>	<b>-</b>	<b>8,087,280,760</b>	

Step 4 - Convert derivative exposure into 'ten year equivalents' and leverage

Net Norm Deriv	10Yr Duration	10Yr Equiv	NAV	Leverage
8,087,280,760	7.5	1,078,304,101	10,000,000,000	10.8%

#### **Step 1: Net "Natural Offsets"**

Step 1A: Calculate exposure, defined as duration dollars for interest rate risk, for each currency for cash securities and derivatives separately.

- See green table.

Step 1B: Compare net exposure from cash securities to those from derivatives and exclude derivative exposure being used for hedging or risk reduction purposes.

- USD Cash: Long \$23.3 billion duration dollars and Short \$2.6 billion → Net = \$20.5 billion (red circles).
- USD Derivatives: Long \$3.6 billion duration dollars and Short \$21.9 billion → Net = -18.3bn (blue circles).

#### **Step 2: Net Hedges**

- USD: Net duration dollars of derivatives is opposite sign of the cash positions and absolute value is less than cash position exposure. Derivatives are being used as a hedge or for risk reduction purposes and should therefore be excluded from the commitment leverage calculation (purple box).
- MXN: Both net cash and derivative exposure is long (same sign), therefore include entire derivative exposure in the leverage calculation as derivatives are being used to obtain exposure to MXN interest rates (purple box).

### Step 3: Volatility Normalization

- Apply the ratio of long term volatilities to express duration dollars in US interest rate terms.
- Total portfolio exposure is \$8.1bn (yellow box).

### Step 4: Units Conversion

- Convert duration dollars into ‘ten year equivalents’ as a percentage of NAV.
- Divide normalized derivative exposure by duration of the ten-year. The approximate duration of the ten-year is 7.5.
  - $8.1\text{bn} / 7.5 = 1.1\text{bn}$
- Divide by portfolio NAV to express in percentage terms:
  - $1.1\text{bn} / 10.\text{bn} = 10.8\%$

### Step 5: Repeat Step 2 for All Risk Exposures and Add to Obtain Commitment Leverage

- A. Interest Rates – 10.8% using US 10 year equivalent exposures by currency (see step 4 under the illustrative example above for details on this calculation).
- B. Spreads – 1.9% using IG Corporate Equivalents. In this case, spread risk exposure (as measured by duration times spread ‘DxS’) is segmented by currency, sector and position type (i.e. Investment Grade, High Yield, Foreign Agency, Agency MBS, Municipal and Structured Bonds) and converted to Investment Grade Corporate Equivalents to obtain exposures in common units and capture derivative hedges. The Investment Grade Corporate Index was chose given its prevalence as a component of the Barclay’s US Aggregate Index.

**Exhibit A.2**

Currency	Sector	Net Exposure (DxS)		Net Hedges	
		Cash Net	Deriv Net	Sign Check	Deriv Net Hedges
AUD	Credit	952,106,355	-	Opposite	-
CNH	Credit	14,462,570,659	-	Opposite	-
EUR	Credit	1,080,221,075,016	117,597,806,957	Same	117,597,806,957
EUR	Foreign Agency	20,861,462,581	-	Opposite	-
EUR	Structured Products	111,773,713,839	-	Opposite	-
GBP	Credit	158,186,505,332	-	Opposite	-
GBP	Structured Products	261,829,862,257	-	Opposite	-
HKD	Credit	15,542,209,335	-	Opposite	-
INR	Credit	4,773,612,253	-	Opposite	-
JPY	Credit	1,312,082,689	(1,114,496,820)	Opposite	-
SEK	Structured Products	4,748,945,144	-	Opposite	-
SGD	Credit	1,833,050,457	-	Opposite	-
THB	Credit	1,387,046,735	-	Opposite	-
USD	Agency MBS	186,836,416,357	(130,335,846,858)	Opposite	-
USD	Credit	1,719,613,210,898	88,818,225,556	Same	88,818,225,556
USD	Municipal Bond	128,517,072,286	-	Opposite	-
USD	Structured Products	2,283,584,798,795	-	Opposite	-

Calculations related to Spreads:

Total DxS = \$206bn

DxS of Barclay's Investment Grade Corporate Index = 1090

Exposure Equivalents = \$189MM

NAV = \$10bn

= Spread Derivative Leverage = 1.9%

### C. FX – 7.1% using DXY

A similar approach is used for currency exposures. Under this approach, convert unhedged portfolio level exposure to equivalent units of the DXY Index, and sum the absolute values. The DXY Index is a weighted average of the US Dollar versus a basket of other major currencies and provides an indication of the international value of the US Dollar.

**Exhibit A.3**

Currency	Exposure	LT Volatility	Abs Val DXY Equiv
AUD	-1.3	12.8%	2.0
CHF	0.2	11.2%	0.2
EUR	-1.8	10.6%	2.3
HKD	0.1	0.4%	0.0
JPY	-0.8	9.5%	0.9
NOK	0.4	12.8%	0.6
PLN	0.3	15.2%	0.6
TRY	0.1	11.0%	0.2
DXY		8.3%	
<b>Total</b>			<b>7.1</b>

### D. Outright Borrowing using repo<sup>26</sup> - \$285 million or 2.8% of NAV

### E. Short Positions - \$601 million or 5.9% of NAV



### Result

When added to NAV, total commitment exposure is 128.5% meaning that this fund is levered under the commitment approach 1.285 times.

<sup>26</sup> Borrowing could also include the use of bank credit lines or inter-fund lending.

## **Tradeoffs between Precision versus Tractability**

The above described calculation of “commitment” leverage provides an estimate of the degree to which borrowings and derivatives are used as leverage in a fund (based on hedges and offsets that are manually calculated using risk bucketing approaches and normalization of risk to common units). Note that the units of leverage are meant to represent the economic equivalent of borrowing, and when trying to assess the impact of derivatives on economic leverage, there is no perfect solution. The commitment leverage measure necessarily does not fully-capture the full range of basis and other risks that are embedded in a fund’s risk profile. One way to compensate for this limitation is to use an additional risk metric, ex-ante portfolio risk, to get a more holistic understanding of the portfolio, albeit in a different measurement unit.

Portfolio risk can be measured directly by estimating ex-ante risk of all positions in the portfolio based on a variance / covariance matrix (e.g., estimated from a historical time series of volatilities and correlations of market risk factors). Measuring a portfolio’s factor exposures (i.e., portfolio risk sensitivities such as duration, convexity, spread duration, etc.) only provides an indirect and incomplete set of metrics. The ex-ante risk calculation attempts to provide a comprehensive metric that integrates the portfolio’s factor exposure with an estimate of the volatility structure in the markets. In typical asset management practice, ex-ante market risk is generally measured on an annualized basis and in terms of one standard deviation of total returns. The measure captures volatilities at the individual risk factor level as well as correlations across risk factors, thereby incorporating the effects of diversification among portfolio positions. This measure captures volatilities at the individual risk factor level as well as correlations across risk factors based on the variance/covariance matrix structure and market price levels for risk factors. This means that diversification is captured explicitly by the model.

It therefore follows that an approach that leans more heavily on a portfolio’s factor exposures, such as our simplified “commitment leverage calculation”, may miss certain elements of the underlying risk dynamics. The grid of exposure types (e.g., US interest rates) is used to net factor exposures one-to-one against each other, implicitly assuming that all such exposures within a given “risk bucket” are perfectly positively or negatively correlated. This is a simplification that does not generally hold true, although the result of this simplifying assumption will often be reasonable if the grid of risk buckets used is sensible.

## **Calculating Ex-Ante Portfolio Risk**

In this example, the annual one standard deviation risk of this portfolio was 1.42%. This means, on an ex-ante basis, the one standard deviation, annualized portfolio risk is expected to be 1.42. As shown in Exhibit A.8, the 1.42% one standard deviation risk includes stand-alone risk from key risk factors, including rate risk (91 bps), spread risk (89 bps), and equity risk (29 bps). Diversification and application of correlations in the calculation of portfolio risk results in a 1.42% risk measure that is substantially lower than the sum of the key stand-alone risks for the portfolio. This can be readily viewed in the risk contribution column shown in Exhibit A.8.

**Exhibit A.8: Example Calculation of Portfolio Risk**

Risk Group	Exposure	Exposure Units	Stand-Alone Risk	Risk Contribution
<b>Rates</b>	1.57	years of duration	91	57
EUR Sovereign Spreads	0.32		45	26
DEM Rates	0.49		44	15
Other Interest Rates	0.38		18	8
USD interest Rates	0.59		55	8
AUD Interest Rates	0.15		13	2
CEE Interest Rates	-0.08		4	-2
JPY Interest Rates	0.00		4	-1
GBP Interest Rates	-0.28		20	0
<b>Spreads</b>	2.49	years of spread duration	89	50
Corporate	0.99		47	29
High Yield	0.36		31	19
Investment Grade	0.63		16	9
USD Emerging Markets	0.17		20	11
Other Spreads	1.50		33	10
Loans	0.25		9	5
CMBS	0.21		7	4
Muni	0.39		17	-3
Mortgage	0.47		14	2
Government Related/Covered	0.03		4	1
ABS	0.15		2	0
<b>Swap Spreads</b>	-0.14	years of spread duration	7	-1
<b>Equity</b>	4.33	percent of NAV	27	21
<b>Foreign Exchange</b>	2.93	percent of NAV	29	13
<b>Inflation</b>	0.33	years of duration	14	2
<b>Alternative (Commodity)</b>	0.53	percent of NAV	7	0
<b>Volatility</b>	0.68	years of volatility duration	5	0

#### Detailed Risk from US Interest Rate Exposure

As shown below, the ex-ante portfolio risk measure captures risk at a more granular level including actual exposures, diversification, and offsets. In this example, the portfolio has long exposure to 10Y US Rates of .54 (with stand-alone portfolio risk of 45 bps) and short exposure to 2Y US Rates of -.32 (with stand-alone risk of 13 bps). The risk of these positions is captured explicitly in the portfolio risk measure with risk contribution to US rate risk from the 2Y exposure equal to zero and 5 bps for the 10Y exposure.

**Exhibit A.9**

Risk Group	Exposure	Exposure Units	Stand-Alone Risk	Risk Contribution
<b>USD Interest Rates</b>	<b>0.59</b>	<b>years of duration</b>	<b>55</b>	<b>8</b>
Treasury 3M	0.09		1	0
Treasury 1Y	0.06		1	0
Treasury 2Y	-0.32		13	0
Treasury 3Y	0.03		1	0
Treasury 5Y	0.08		6	0
Treasury 7Y	-0.20		16	-2
Treasury 10Y	0.54		45	5
Treasury 15Y	0.13		11	1
Treasury 20Y	0.11		9	1
Treasury 25Y	0.04		3	0
Treasury 30Y	0.05		4	1

**Gross Notional Exposure**

Gross Notional Exposure can be useful in providing information about the portfolio's use of derivatives (i.e., the "derivatives footprint" as described throughout this letter). In this example, the fund's GNE is 417% of NAV or \$41.7 billion. This shows that the fund in this example uses a significant amount of derivatives which may signal a degree of complexity in the portfolio. However, actual economic leverage as measured by our "commitment" leverage calculation shown above is only 28.5% of NAV.

For illustrative purposes, we have provided the components of GNE below.

**Exhibit A.4: GNE from Cash Securities**

Currency	Cash Gross Notional (% of NAV)	Cash Gross Notional (\$ billions)
EUR	18%	1.8
GBP	3%	0.3
JPY	1%	0.1
MXN	1%	0.1
USD	99%	9.9
Other	2%	0.2
<b>Grand Total</b>	<b>124%</b>	<b>12.4</b>

**Exhibit A.5: GNE from Interest Rate Derivatives**

Currency	Derivative Gross Notional (% of NAV)	Derivative Gross Notional (\$ billions)
AUD	9%	0.9
BRL	5%	0.5
CAD	12%	1.2
CNY	1%	0.1
EUR	8%	0.8
GBP	43%	4.3
JPY	3%	0.3
KRW	6%	0.6
MXN	3%	0.3
PLN	4%	0.4
USD	120%	12.0
Other	2%	0.2
<b>Grand Total</b>	<b>216%</b>	<b>21.6</b>

**Exhibit A.6: GNE from Spread Derivatives**

Currency	Derivative Gross Notional (% of NAV)	Derivative Gross Notional (\$ billions)
EUR	5%	0.5
GBP	0%	-
JPY	0%	-
USD	47%	4.7
Other	1%	0.1
<b>Grand Total</b>	<b>53%</b>	<b>5.3</b>

**Exhibit A.7: GNE from FX Derivatives**

Currency	Derivative Gross Notional (% of NAV)	Derivative Gross Notional (\$ billions)
AUD	1%	0.1
EUR	16%	1.6
GBP	2%	0.2
HKD	0%	-
JPY	2%	0.2
MXN	1%	0.1
NOK	0%	-
PLN	0%	-
Other	2%	0.2
<b>Grand Total</b>	<b>24%</b>	<b>2.4</b>

As this example demonstrates, GNE can be misleading from a risk perspective, particularly if it is used in isolation from other measures. Specifically, in the case of US interest rates, derivatives are primarily being used to express front end interest rate views, which require large notional positions, and for risk reduction purposes. As the commitment leverage and portfolio risk calculations showed, the majority of these positions are not being used to introduce additional risk into the portfolio.